U.S.S.N.: 09/756,649

Page 2 of 21

Amendments To The Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

- 61. (Previously presented) A surgical device comprising:
- a sensor element for detecting dynamic and static forces imparted on the device, wherein non-visual information relating to these forces is communicated to a user of the device.
- 62. (Currently amended) The device of claim 61 wherein the <u>device interacts with an environment and the</u> sensor element detects a physical interaction of the device with the environment, electrical properties of the environment or a spatial relation of the device with the environment.
- 63. (Currently amended) The device of claim 61 wherein information relating to forces imparted on the device [preferably] is amplified and then communicated to the user.
- 64. (Previously presented) The device of claim 61, wherein the non-visual information is tactile or auditory.
- 65. (Previously presented) The device of claim 61, wherein the sensor element transmits an electrical signal in response to forces imparted on the device.
- 66. (Previously presented) The device of claim 61, wherein the sensor element generates electrical signals based on forces imparted at a distal end of the device.
- 67. (Previously presented) The device of claim 61, wherein the device is adapted for a microsurgery procedure.

U.S.S.N.: 09/756,649

Page 3 of 21

68. (Previously presented) The device of claim 61, wherein the device is adapted for an ophthalmic procedure.

69. (Previously presented) The device of claim 61, wherein the device is adapted for neurosurgery.

70. (Previously presented) The device of claim 61 wherein the device comprises a sensor element for sensing forces imparted along a substantial length of the device.

- 71. (Previously presented) The device of claim 61, wherein the sensor element generates a proportional signal in response to a force on the device, wherein the strength of the signal is proportional to the amount of force on the device.
- 72. (Previously presented) The device of claim 71, wherein the device further comprises an electronic controller for generating an output signal based on the proportional electrical signal.
- 73. (Previously presented) The device of claim 72, wherein the device further comprises an output transducer for receiving the output signal, wherein the output transducer produces a sensory signal proportional to the amount of force imparted on the device.
- 74. (Previously presented) The device of claim 73, further comprising an energy conducting apparatus for transmitting the output signal from the electronic controller to the output transducer
- 75. (Previously presented) The device of claim 73, wherein the output transducer is any one of a speaker, earphone or headphone.

U.S.S.N.: 09/756,649

Page 4 of 21

76. (Previously presented) The device of claim 61, wherein the output transducer is an electromechanical transducer.

77. (Previously presented) The device of claim 76, wherein the electromechanical transducer is attached to a grip portion of the device.

78. (Previously presented) The device of claim 76, wherein the electromechanical transducer is attached to a medical practitioner that uses the device.

79. (Previously presented) The device of claim 61 further comprising a mechanism that transmits electric signals from the sensor element to the electronic controller.

80. (Previously presented) The device of claim 61, further comprising a power source for the device.

81. (Previously presented) The device of claim 80, wherein the power source is connected to the device through an electrical cable.

82. (Previously presented) The device of claim 61, wherein the device comprises a battery.

83. (Previously presented) The device of claim 68, wherein the sensor element comprises a piezopolymer.

84. (Previously presented) The device of claim 83, wherein the piezopolymer generates an electric signal when flexed that is proportional to the degree of flexion.

85. (Currently amended) The device of claim 61, wherein the <u>device includes a shaft</u> and the sensor element comprises a strain gauge contained within, or attached to, the shaft.

U.S.S.N.: 09/756,649

Page 5 of 21

86. (Previously presented) The device of claim 72, wherein the electronic controller operates under control of a microprocessor.

- 87. (Previously presented) The device of claim 86, wherein the microprocessor provides an ability to adjust the sensitivity and threshold of operation of the device.
- 88. (Currently amended) The device of claim 61, wherein the surgical device is [self contained] <u>self-contained</u>.
- 89. (Currently amended) The device of claim 61, wherein the device [can] is adapted to be sterilized.
- 90. (Previously presented) The device of claim 61, wherein one or more parts of the device are modular.
- 91. (Previously presented) The device of claim 90, wherein the one or more parts are disposable.
- 92. (Previously presented) The device according to claim 90, wherein the one or more parts are reuseable.
- 93. (Currently amended) The device according to claim 61, wherein the device interacts with an environment and senses impedance or magnetic flux in the environment.
- 94. (Previously presented) The device of claim 61, wherein the device senses proximity and/or contact with a tissue.

U.S.S.N.: 09/756,649

Page 6 of 21

95. (Currently amended) The device of claim 61, wherein the device comprises a shaft having a distal end and a handle and wherein the sensor is [place] <u>placed</u> between the shaft and the handle.

- 96. (Previously presented) The device of claim 95, wherein the handle is rigid.
- 97. (Previously presented) The device of claim 61, wherein the device comprises a shaft and the sensor is imbedded within the shaft.
- 98. (Previously presented) The device of claim 61, wherein the device comprises a disposable tip.
- 99. (Currently amended) A method of performing a medical procedure, comprising [bring] <u>bringing</u> a device according to claim 61, into proximity with a tissue and sensing static and/or dynamic forces on the device.
- 100. (Previously presented) The method of claim 99, further comprising the step of guiding the movement of the device based on non-visual information received in response to the sensing.
- 101. (Previously presented) The method of claim 99 or 100, further comprising manipulating the tissue of a patient with the device.
- 102. (Previously presented) The method of claim 101, wherein the tissue is neurological tissue.
- 103. (Previously presented) The method of claim 101, wherein the tissue of a patient's eye is manipulated.

U.S.S.N.: 09/756,649

Page 7 of 21

104. (Previously presented) The method of claim 99, wherein the medical procedure is a surgical procedure.

105. (Previously presented) The method of claim 99 or 100, wherein non-visual information is transmitted in real time to a user of the device.

106. (Previously presented) The method of claim 105, wherein non-visual information which is tactile and/or auditory is transmitted to a user of the device.

105. (Previously presented) The method of claim 97, where signals corresponding to forces on the device are amplified and communicated to a device user.

106. (Previously presented) The method of claim 105, wherein the signals are electrical signals.

107. (Previously presented) A kit comprising a device of claim 61, packaged in a sterile form.

108. (New) A surgical device comprising:

a sensor element for detecting dynamic and static forces imparted on the device, wherein non-visual information relating to these forces is communicated to a user of the device and wherein the sensor element is capable of detecting a spatial relation of the device with the environment.